

# **PHENIX**

# **WEEKLY PLANNING**

10/9/2008

Don Lynch

# IR Configuration for remainder of shutdown

October				November				December				January				
5	12	19	26	2	9	16	23	30	7	14	21	28	4	11	18	25

**Station 1 north access now-10/15**  
 (Current Configuration:  
 CM & MMS south WC west



**Run Position 10/15 - 10/31**  
 (CM & MMS moved north WC west)



**Station 1 south access 11/3-12/12**  
 (MMS moved south WC west)



**Station 1 north access 12/15-12/31**  
 (CM moved south, WC west)



**East Carriage Install 1/2-1/15**  
 (CM moved north, EC & WC opt.)



**Run Position 1/16-1/19**  
 (MMS moved north, EC & WC opt)



**Ready for run 9 1/19-2/1**  
 (MuID Collars Installed, EC & WC opt.)



Technical Support 2008

10/9/08

October	November	December	January
5 12 19 26	2 9 16 23 30	7 14 21 28	4 11 18 25

Station 1 north access now-10/15



(Current Configuration:  
CM & MMS south WC west

Install & test



Sta. 1 N cards now-10/15

Remove Sta 1 N scaffold 10/13-10/15



October	November	December	January
5 12 19 26	2 9 16 23 30	7 14 21 28	4 11 18 25


Run Position 10/15 - 10/31  
(CM & MMS moved north WC west)



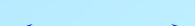
Move CM & MMS north 10/15-10/18 —


MuTrigger S rack ass'y <DONE>

RPC proto rack assy by 10/15 

water & Elec prep 10/17-10/31 

RPC2 proto gas system by 10/31 

RPC proto cable by 10/31  
routing & support 

Install RPC2 prototype 10/20-10/31 

PC1 West repairs 10/20-10/31 

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October    November    December    January  
 5 12 19 26    2 9 16 23 30    7 14 21 28    4 11 18 25

Station 1 south access 11/3-12/12  
 (MMS moved south WC west)



Move MMS south 11/2



Install sta 1. Scaffolds 11/3-11/7



HBD Installation



MuTrigger FEE 11/10-11/14  
 Sta 1 S chasis install



Sta 1, 2 & 3 chasis 11/10-11/14  
 Water & air



Install/test cards 10/2-11/30  
 sta 2&3 N and sta 1, 2 & 3 S



Install Lead absorber 11/17-11/21



Install FEE S rack platform 11/17-11/21  
 And racks



FEE S Cabling & Testing 11/24-11/29



MuTr sta 1 S Decaps 12/1-12/12



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10/9/08

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5	12	19	26	2	9	16	23	30	7	14	21	28	4	11	18	25

Station 1 north access 12/15-12/31  
(CM moved south, WC west)



Remove Sta 1 S 11/24-12/18  
And Sta 2/3 N scaffolds



Move CM south 12/18



Install MMS lampshade 12/18-12/21



Install MMN lampshades 12/18-12/31



Technical Support 2008

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5	12	19	26	2	9	16	23	30	7	14	21	28	4	11	18	25

**East Carriage Install** 1/2-1/15  
(CM moved north, EC & WC opt.)



**Install EC** 1/2-1/15



**Run Position** 1/16-1/19  
(MMS moved north, EC & WC opt)



**Move MMS North** 1/16



**Ready for run 9** 1/19-2/1  
(MuID Collars Installed, EC & WC opt.)



**DC East/West Repairs** 1/16-2/1



**Install MuID Collars** 1/19-1/21



**Pink/Blue/White Sheets** 1/16-2/1



**Close Shield Wall** 126-1/30



**Cryo Start Up, Start Physics** 2/1-2/18



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10/9/08

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5	12	19	26	2	9	16	23	30	7	14	21	28	4	11	18	25

## Other On going Tasks

Fan Tray Maintenance (fill in)



RPC3 Prototype install (by 12/31)  
(including assembly at factory,  
Moving tunnel shielding, modify  
Crystal palace & vapor barrier,  
RPC3 install, rack, services & testing)



RPC Factory Support



Dark Current test stand

Storage Racks with humid. Cntrl



Prep for 2009 Shutdown  
(as time permits)

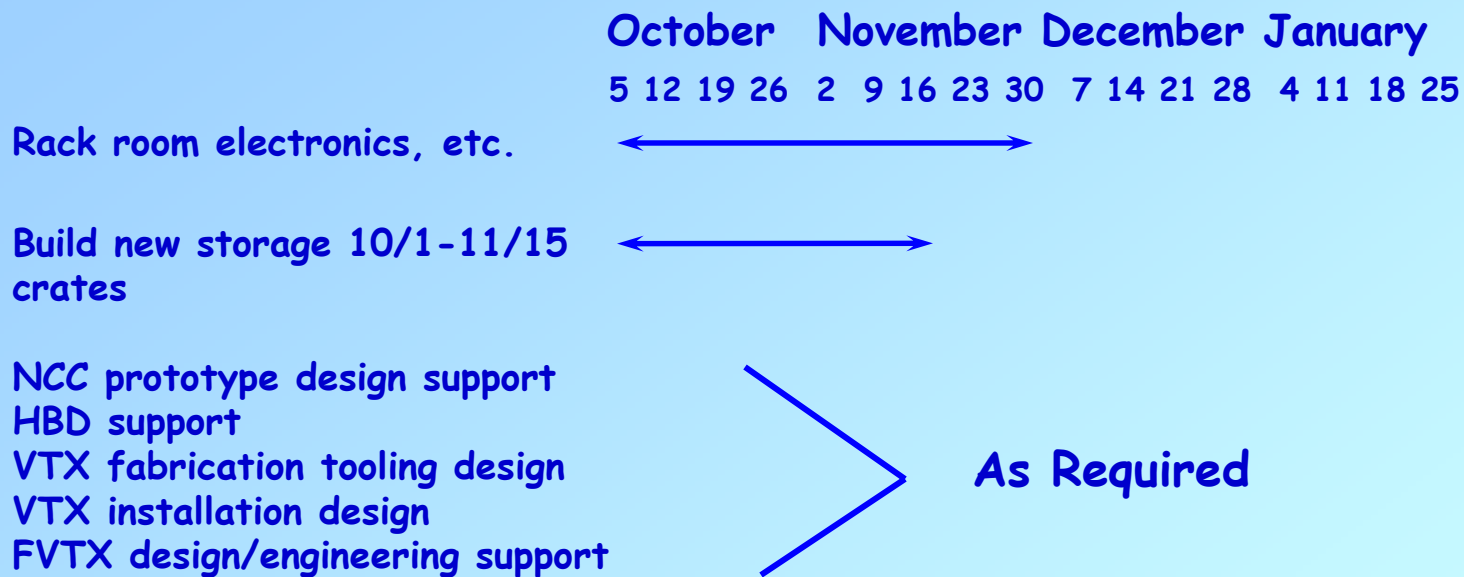


Gas Mixing house UPS by 11/30

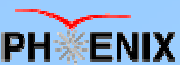


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# Shutdown '08 Electrician Work



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1. Run Power to new MuTrgr FEE racks on MMS. *by 10/31*
2. Install 120 volt AC power drops into new control room annunciator alarm rack (rack room). *Work in progress, to be completed by 10/15.*
3. Re-wire ToF Rack power distribution bucket in Gas Mixing House. This is to correct minor wiring errors. *By 10/31/08*
4. Install new UPS in Gas mixing house. *By 11/30*
5. Walk down PHENIX Electrical Distribution Panels/Breakers and update changes on the electrical one-line drawings. *Complete by 11/30/08.*
6. Install power and signal cable tray (ceiling suspended) for new DCM rack row - north of existing DCM racks. *To Be Scheduled*
7. Assist in signal and LV cable installation for MuTr/ RPC upgrades as necessary. *MuTrgr North Done, MuTrgr South & RPC Prototype to be scheduled*
8. Repair Duct heaters for Control Room. *To Be Scheduled before it gets cold*
9. Upgrade power capacity of Central Magnet power distribution for future bridge rack loads.
  - a) Remove existing 15KVA transformer and install 45KVA unit.
  - b) Install new (larger size) power cable from rack room to Central Magnet distribution breaker panels.

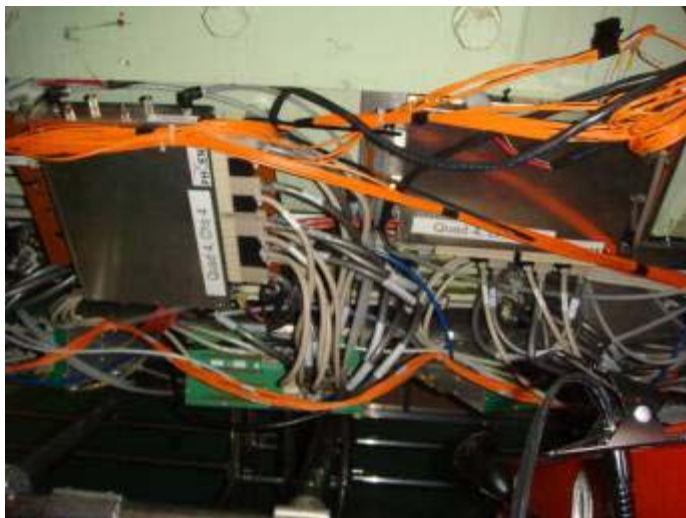
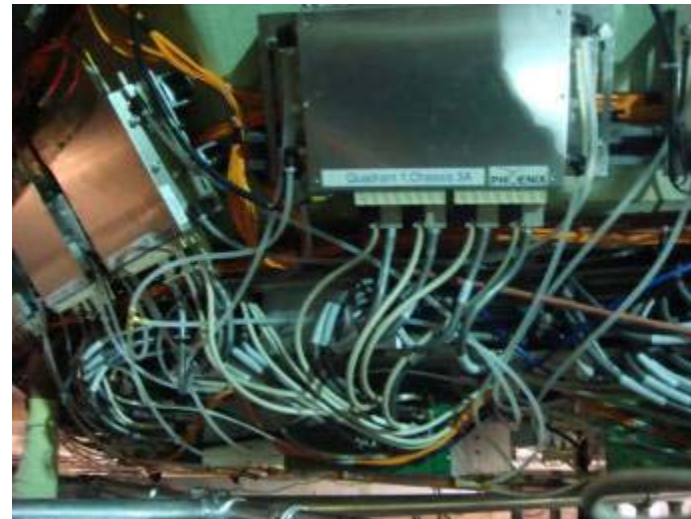
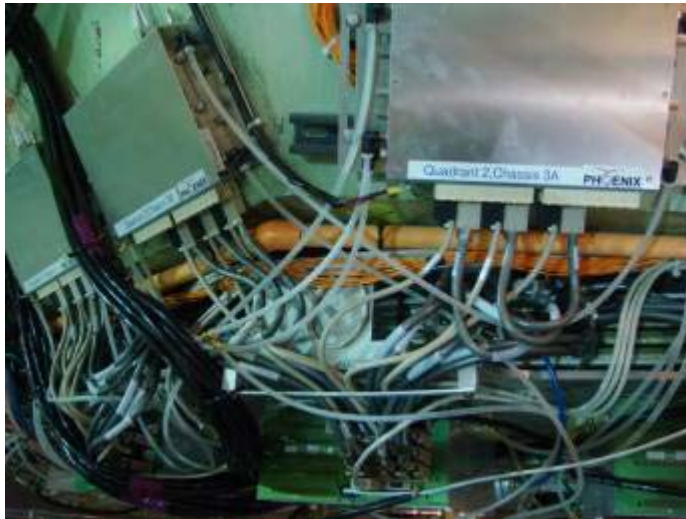
*Lower priority not required for run 9, to be scheduled when manpower available and operations & projects inconvenience are minimized*

10/9/08

# MuTrig Status

RIKEN/RBRC  
Itaru Nakagawa  
For  
MuTrig Group

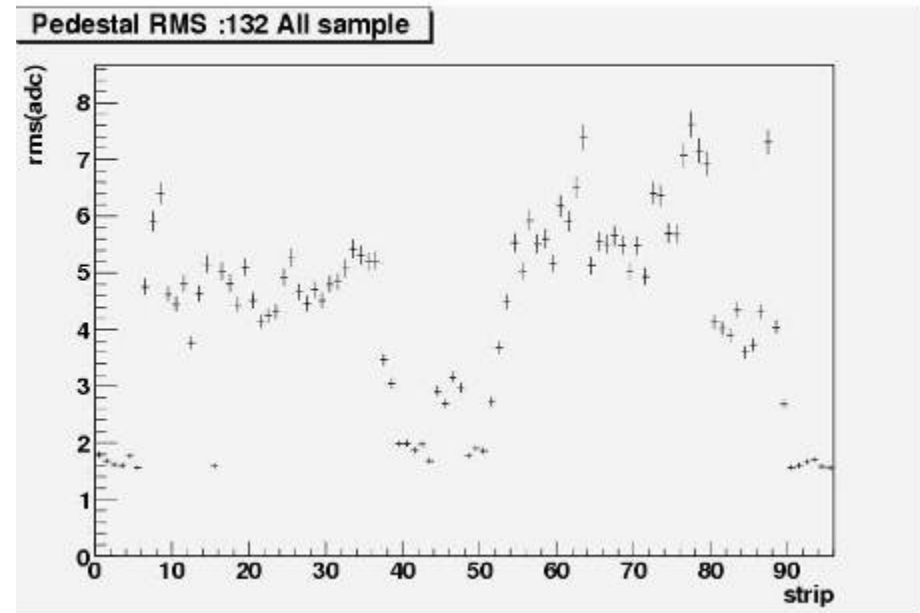
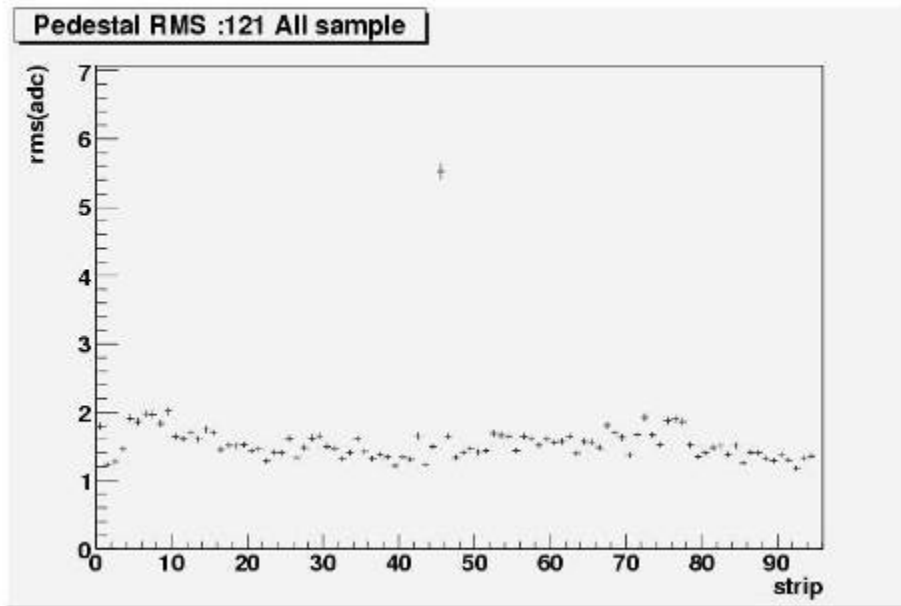
# All ADTX-FEE cables are installed



# Installation Check List

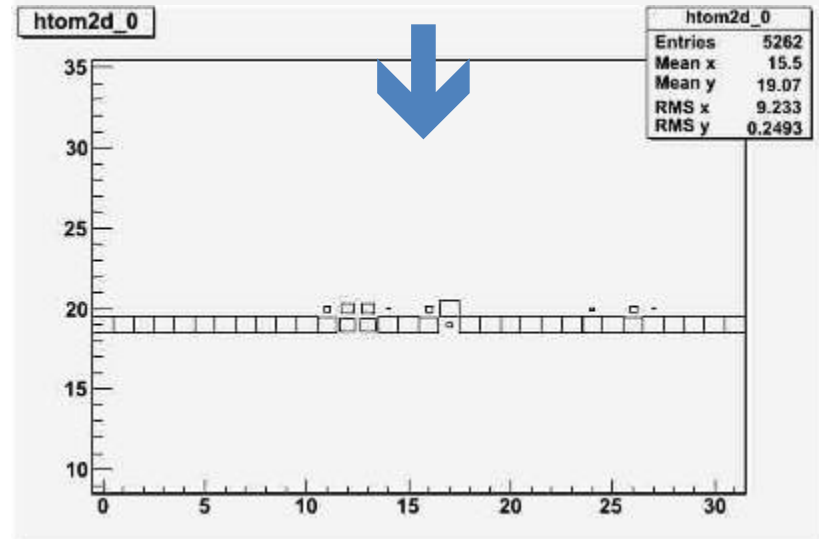
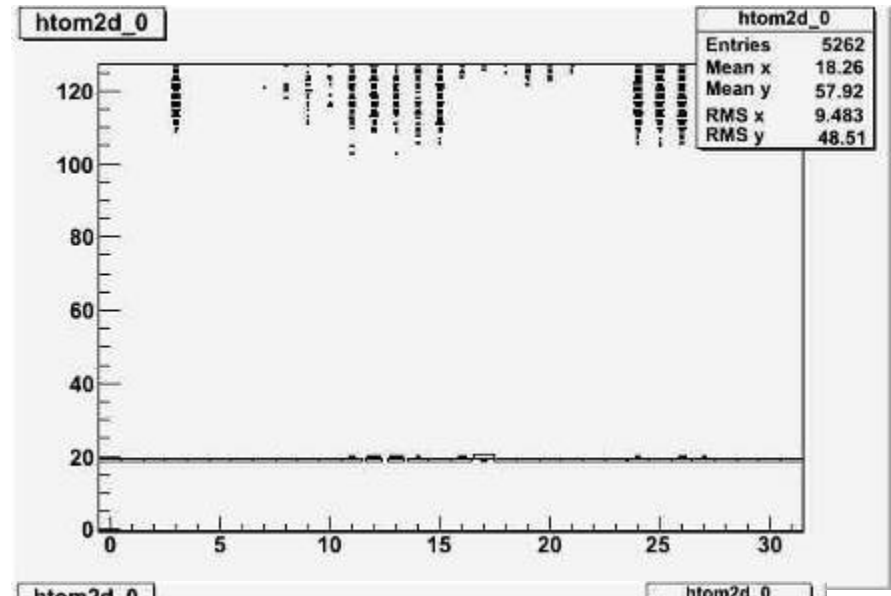
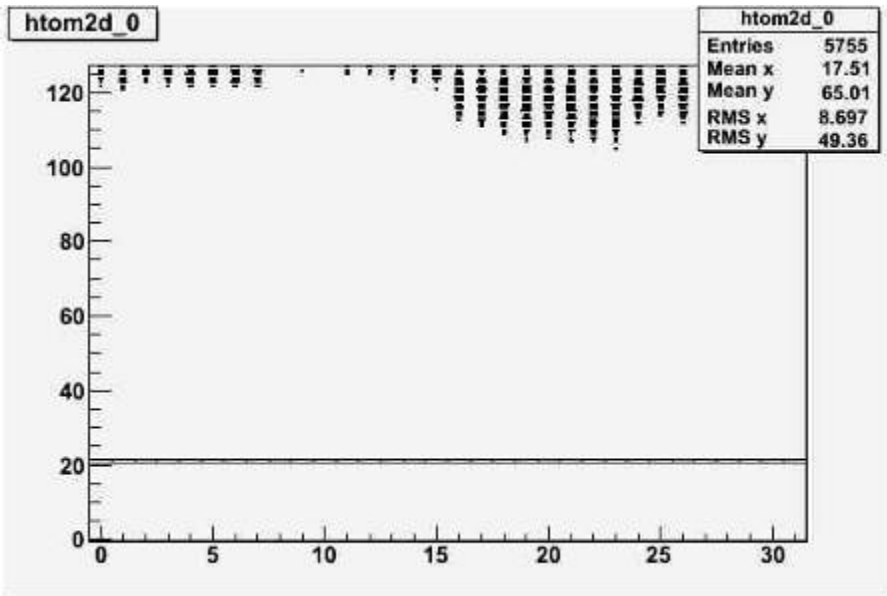
- Miscabling
  - Visible check ✓
  - Data consistency check ✓
- ADTX Performance
  - Slow control ✓
  - Efficiency ✓ → more statistics
  - Fake hit ✓ → only one noisy channel found...
  - Timing ✓ → smeared timing in some channels...
- MuTR FEE Performance
  - Noise → one noisy plane in oct.1
  - Gain → ✓

# Noisy Channels



Octant-1, Gap-3 Plane-1&2

# Timing Smearing





# Man Power

	B	C		CNCNC(CFC(CFCSC(TLCVCV)CYCZDADEDC(D(DED(FD(CF DI DJ DKDLNDND(CDFD(CDFDS(DTLDVD)DYDZEAECECEEEFE
1	2008年BNL夏	BNL津在予定表		
2				
3				
4				
5	氏名	所属	October	November
6	Naohito Saito	KEK	30 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
7	Tsutomu Mibe	KEK	Spin08	
8	岡田裕美	KEK		
9	Izuru Nakagawa	理研		
10	竹谷篤	理研		
11	Yoshi Fukao	理研		
12	今井憲一	京都		
13	村上哲也	京都		
14	谷田聖	京都		
16	Kenichi Karatsu	京都	dorm	Apartment
17	Katsuro Nakamura	京都	dorm	
18	足立智	京都		
19	浅野秀光	京都		
20	佐田優太	京都		
21	栗田和好	立教		
22	橋本公瑛	立教		
23	河西実希	立教		
24	村田次郎	立教		
25	川村広和	立教		
26	豊田健司	立教		
27	秦麻記	立教		
28	新田 稔	立教		
29	秋山昂伸	立教		
30	池田友樹	立教		
31	二宮一史	立教		
32	聖代橋悦子	立教		
33	羽木洋介	立教		
34	Eric Johns	SUNY		
35			SPIN2008	Station-1 Scaffold Decemble
36				
37				
38				
39				
40				
41				
42				
43				



# 30 ADTX boards arrived yesterday

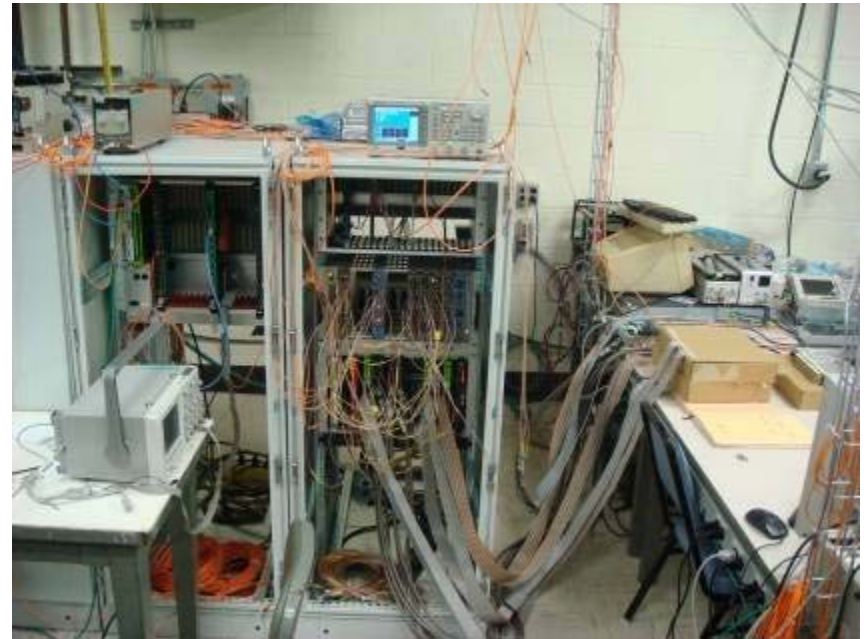


# Plan for this week

- Debugging remaining problems
- Noise hunt with Mike Leitch / next Monday
- Install Thermocouples into station-1
  - Top/Bottom octant

# Remaining tasks for completion of North station 1

- Infrastructure
  - Done
- ADTX boards prep
  - All 40 boards installed
- Chain test
  - Noise check
  - Gain check
  - Fake hit rate
  - Efficiency check



# History

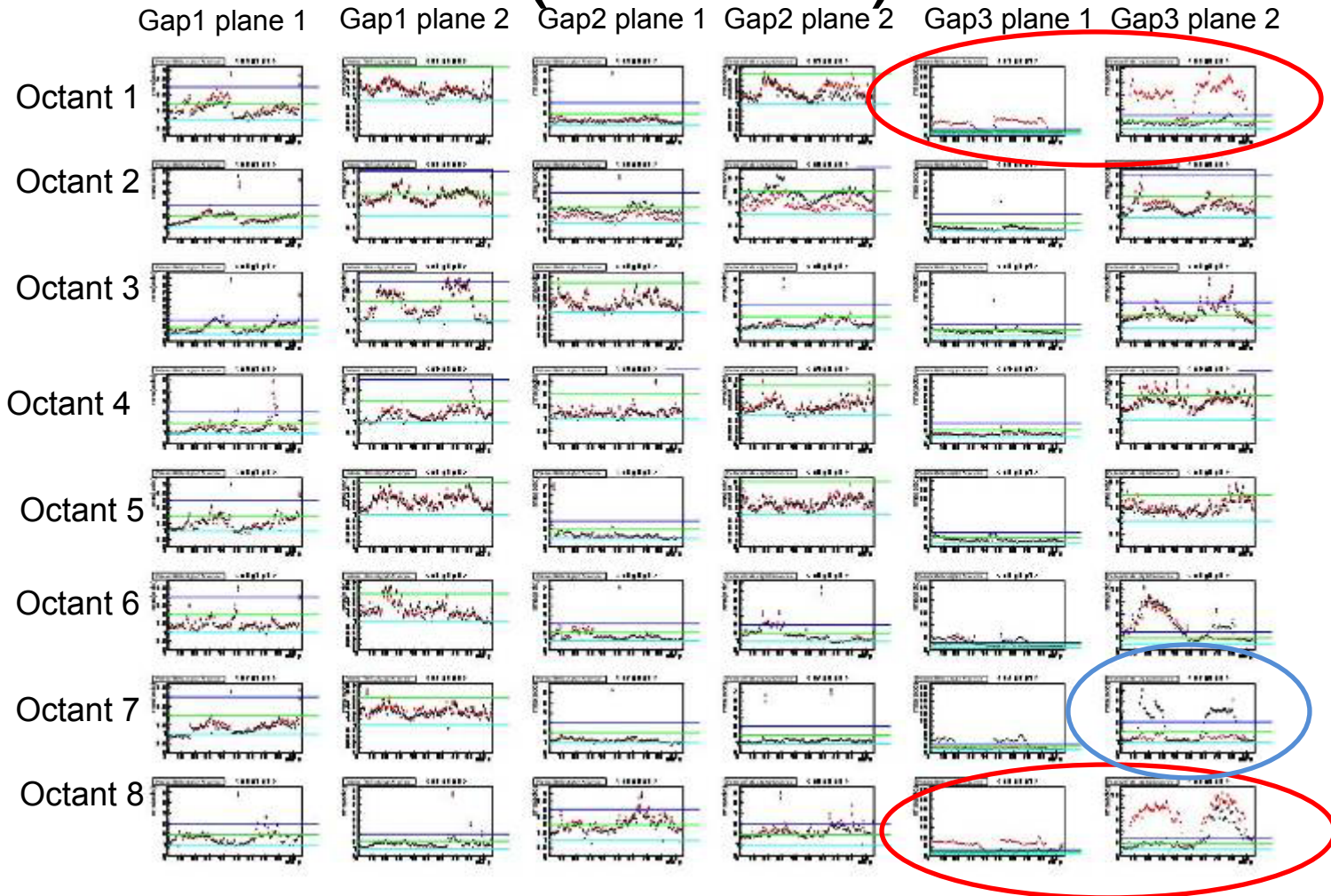
Date	Run number	MuTRG activity at IR	Other activities
Mar 11	260034	No	Run 8
May 26	260676	No	After run 8, scaffold in?
July 15	261314	No	Decapacitation?
Aug 14	261479	Cable running	Decapacitation?
Sep	261656	Completion of chassis installation	
Sep	261870	Completion of 30-cm cable installation	
Oct 3	261989	Completion of ADTX board installation (LV on)	

No MuTRG activity

No MuTRG activity

July 15 (261314) – May 26  
(260676)

RMS (ADC ch)



MuTr strip



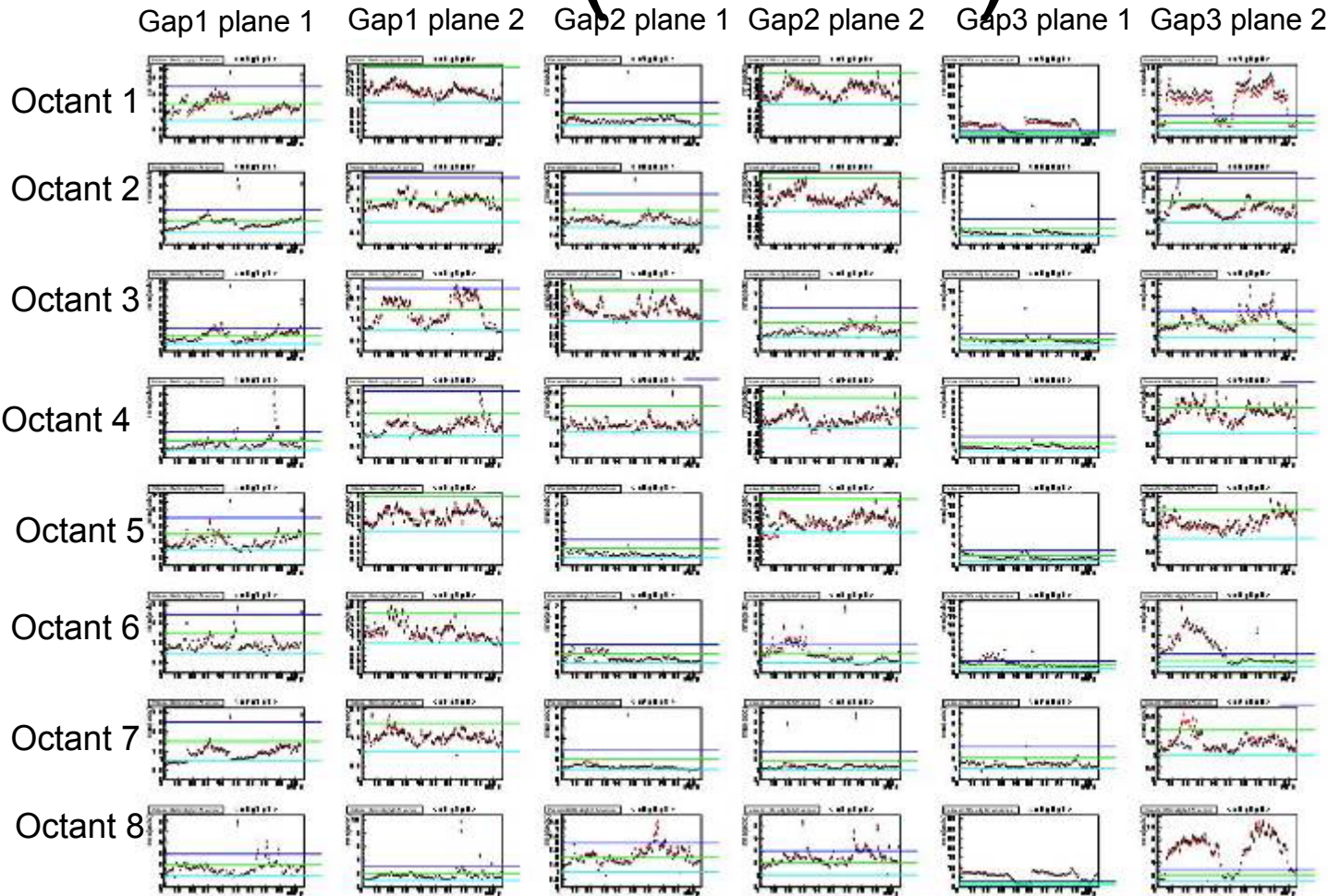
Cable running

No MuTRG activity

Aug 14 (261479) – July

15(261314)

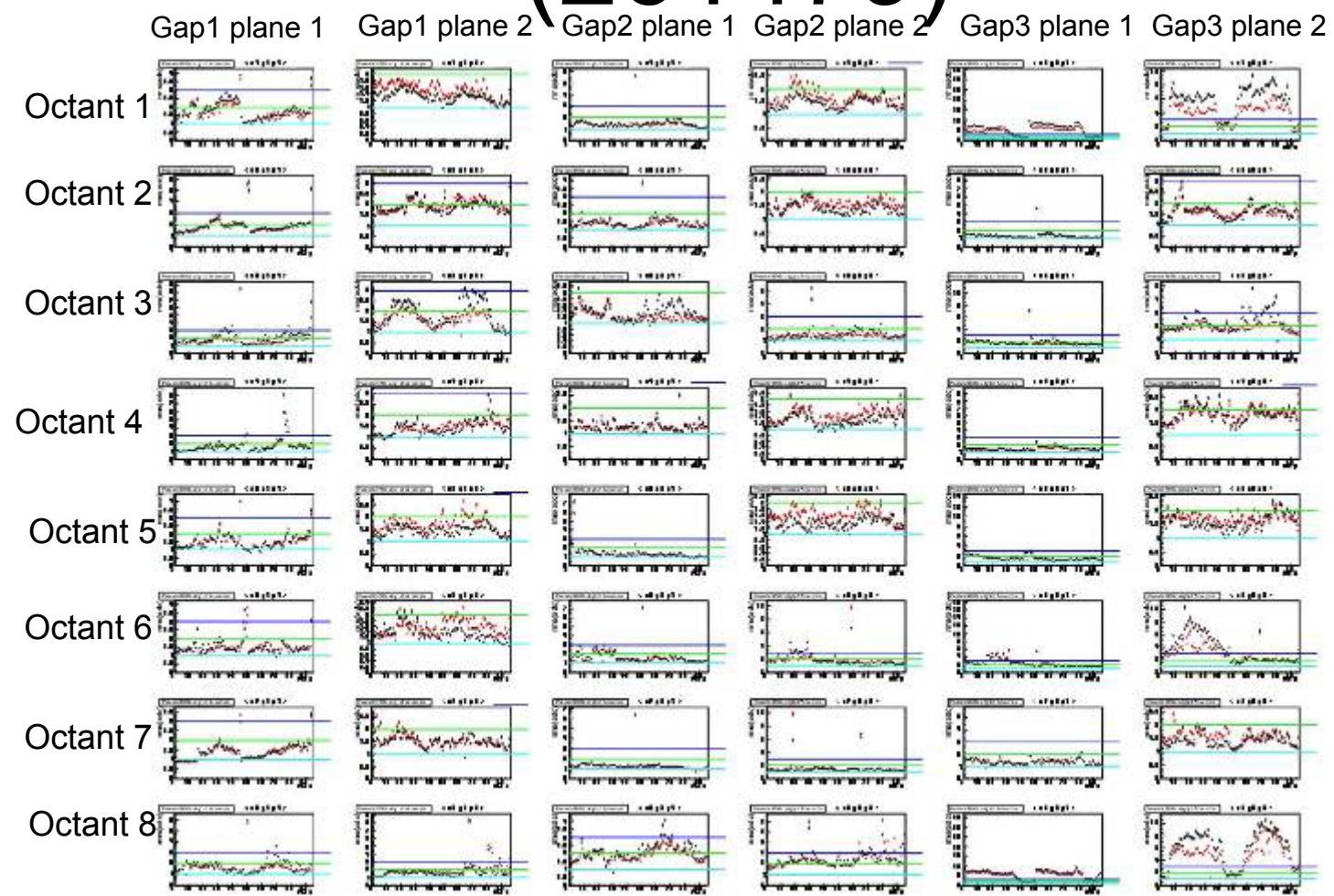
RMS (ADC ch)



MuTr strip

# Oct 3 (261989) – Aug 14 (261479)

RMS (ADC ch)



MuTr strip





**MuTrgr FEE  
South Rack**

**Ready to be  
installed  
after CM  
moves north**



# MuTrigger FEE South & RPC Prototype Racks

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**MuTrigger FEE S Rack is done.**

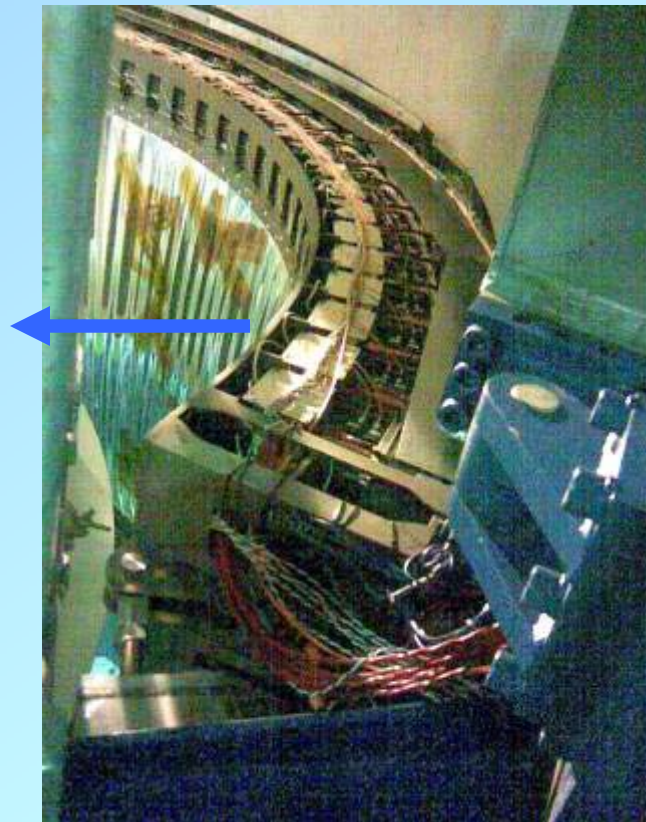
**Work on these racks is in progress**

(Note: DC East shown below;  
West is similar)



~12"

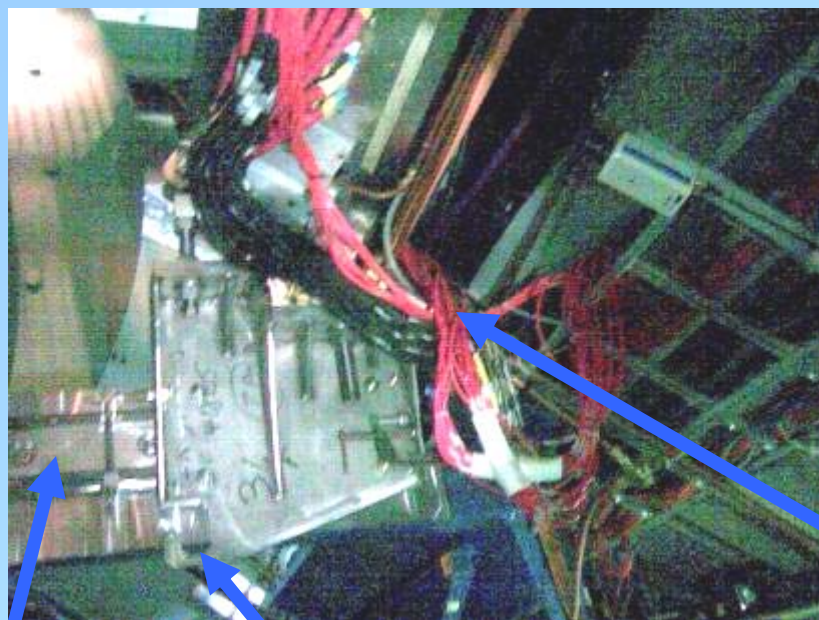
Electronics repair to be accessed in  
this area after DC is moved east  
Work permit is in progress.



Entire DC must be  
moved east ~10"



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Bearing rails

Translation Bar  
(pushing surface) is  
placed here

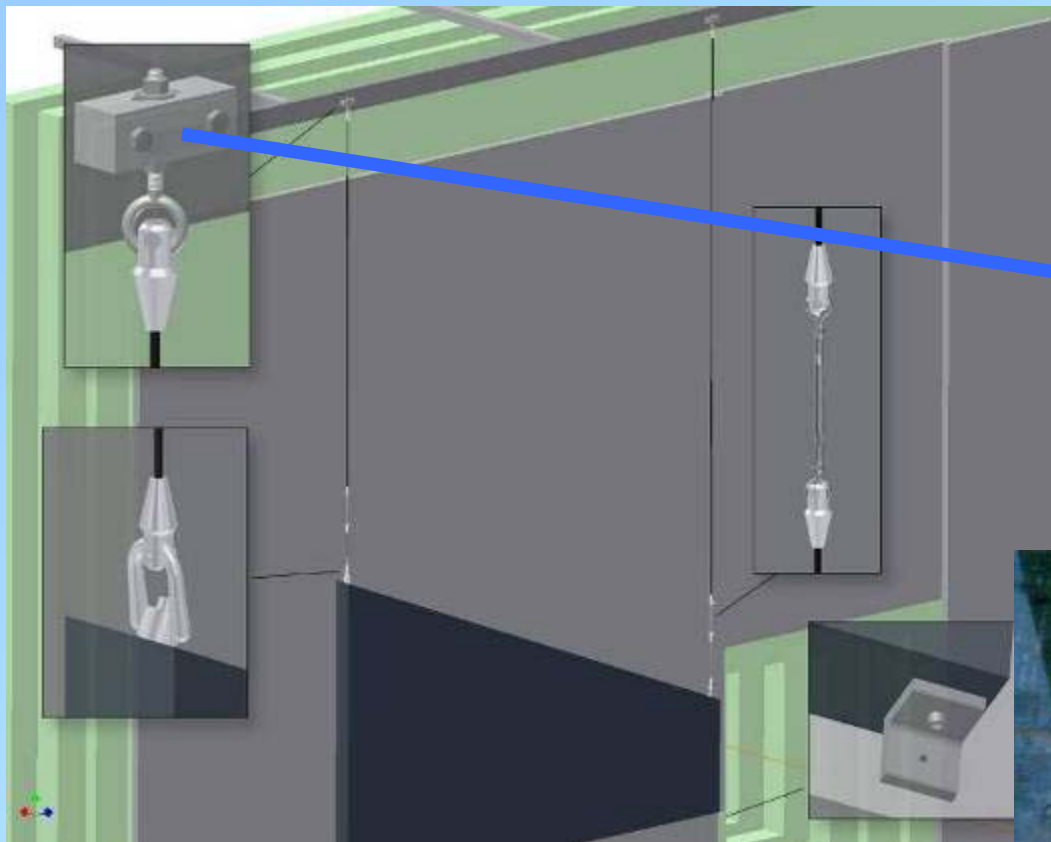


Cabling and piping must be  
carefully evaluated and  
disconnected or allowed to  
travel as appropriate

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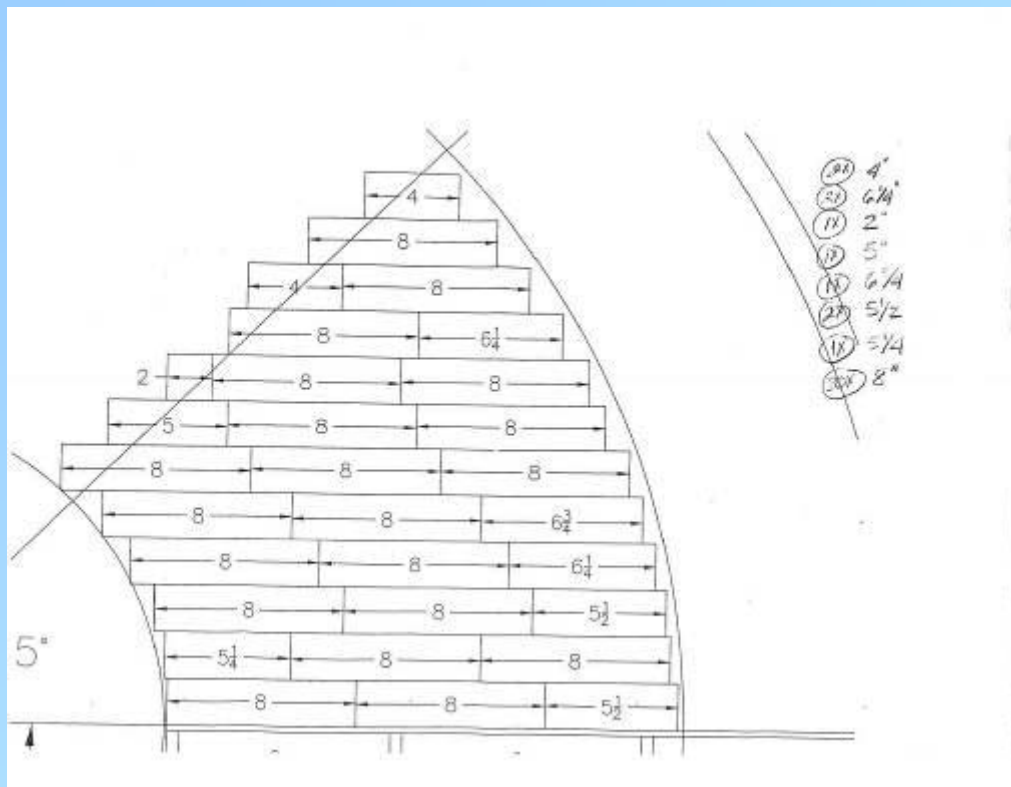
# RPC2 Prototype Installation

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# RPC Absorber

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We need 80 2x4x8 and 28 2x4xZ, where Z is 13 different lengths of varying quantities between 1-1/2" and 6-3/4"

RFQ placed with CS

J. Scott will deliver 120 2x4x8 rad clean and painted lead bricks, on skid to 1008 by 10/15

Don, Jimmy, Kenny, Carter, John and Mike L. must take TQ-LEAD1 (web course) by 10/15

Checking into lead cutting at SUNYSB

Work permit req'd



## RPC2 Prototype Installation

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RPC prototypes will be ready for installation as follows: RPC3 10/13, RPC2: 10/20

## RPC2 Factory Storage area



Dark Current  
Test Stand  
components  
received.



RPC group to dispose of shipping  
containers and left over equipment to  
keep storage area uncluttered.



Gap and Module storage plan written and  
will be made a part of the overall RPC  
factory plan.



## MuTr Decapacitations

Remaining 2008 work: Station 1 South to be done  
~ 12/1-12/15 simultaneously with MuTrgr South  
and RPC absorber installations. Will require Station  
1 scaffolding on south side of CM.



(Note: picture at left is  
mirrored image of  
scaffolding in station 1  
north.)



# Scaffolding Crates

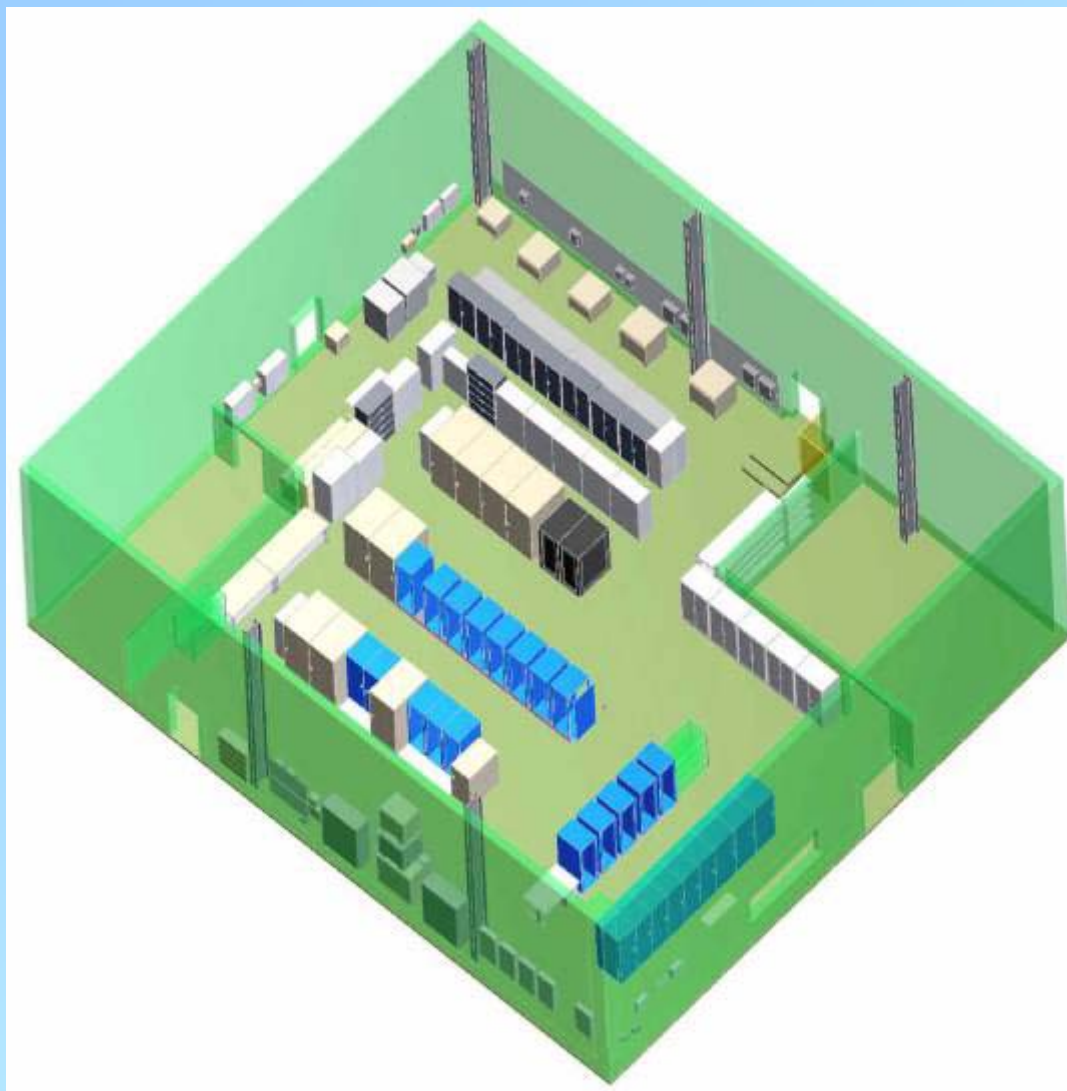
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Existing Crates for Sta 2/3N scaffolds are severely rotted and need to be replaced with weather resistant materials.

Sta. 1 scaffolds do not have storage crates. These need to be built of similar materials. All dimensions of crates are available.

# Rack Room Reorganization



Fairly accurate model  
of the current rack  
room configuration

Plumbing, HVAC and  
cable management,  
items in machine shop  
and items in laser  
room omitted

1. Cyber Security : now an annual training requirement on all BNL JTA's
2. Bldg 912 to be locked. 10 keys:  
4 for PHENIX staff, 6 for RPC group  
those on list see Tracy Blydenburg in 911 to sign for a key.
3. Tunnel access for RPC3 installation: anyone with blue RHIC badge, TLD and current RAD Worker 1 training,

Others with GERT training may get a TLD from C-A safety office if they are on the list:

PHENIX: K. Jones, J. LaBounty, M. Lenz, S. Polizzo, F. Toldo, J. Tradeski, C. Biggs, S. Boose, R. Ruggiero, P. Giannotti, E. O'Brien, D. Lynch, R. Pisani

RPC: Rusty Towell, Ralf Seidl, Young Jin, Dave Northacker, Ruizhe Yang, Anselm Vossen, Beau Meredith, Shouyang Hu, Cheng-Yi Chi, David Kleinjahn

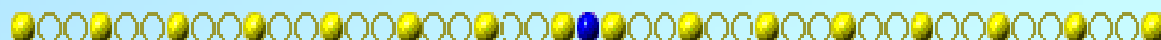


# Where To Find PHENIX Engineering Info



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Links for the weekly planning meeting slides, long term planning, pictures, videos and other technical info can be found on the web site:



[http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL\\_SSint-page.htm](http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm)